

# Notice of Allowability

Application No.

10/601,445

Applicant(s)

DESAI ET AL.

Examiner

Dangelino N. Gortayo

Art Unit

2168

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/19/2007.
2. ☒ The allowed claim(s) is/are 1-8 and 10-15 (renumbered 1-14).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

TIM VO

SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

## **DETAILED ACTION**

### **REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance:

The prior art of record, Silberberg (US Patent 6,957,214 B2), Manikutty (US Patent 7,120,645 B2), Nasr (US Patent 6,882,995 B2), Fernandez (US Patent 6,785,673), Wynblatt (US Patent 6,961,728 B2), and Kiernan (US Patent 6,934,712 B2) teach analogous art to the instant application, that of translating queries from users that can be utilized by heterogeneous data sources. Silberberg more specifically teaches that the translation of queries for recognition by a data source is accomplished through a generic domain data model. However, after careful consideration of the Supplemental Brief (pages 6-9) filed 11/19/2007, the applicant extensively and specifically pointed out how the claim amendments overcome the prior art of record, particularly the generic domain data model of Silberberg mapping every possible combination of data between the input queries and the target data source schema to provide a knowledge base. In comparison, the instant application teaches that the mapping between the input queries and the different target data sources is less complex than the prior art through the use of a common intermediate representation, which simplifies the process of query/view composition by not needing every possible mapping combination, the knowledge base of the prior art. Thus, in the instant application, the cost of executing a plurality of queries directed towards heterogeneous data sources is less than the prior art of record.

This feature is indicated in independent claim 1, wherein the plurality of API calls share a common data model comprising operators of the graph structure of the XML intermediate data language representation, and wherein use of the M front-end languages and the N back-end compilers results in only M plus N system paths instead of M times N system paths.

This feature is also indicated in independent claim 10, wherein a plurality of execution engines wherein the plurality of target queries are executed over the plurality of data sources to produce the query results; and wherein use of the M front-end query language to intermediate language compilers and the N back-end target generators results in only M plus N system paths instead of M times N system paths.

Consequently, independent claims 1 and 10 and dependent claims 2-8 and 11-15 as amended are allowable over prior art of record.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dangelino N. Gortayo whose telephone number is (571)272-7204. The examiner can normally be reached on M-F 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on (571)272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dangelino N. Gortayo  
Examiner



Tim T. Vo  
SPE



TIM VO  
SUPERVISORY PATENT EXAMINER  
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